

### Preliminary



## HD/1,280 x 960 H.264 Fixed Dome Network Camera with ABF (Auto Back Focus)

### Key Features

- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by "UniPhier®", Panasonic's proprietary System LSI platform.
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face image.
- H.264 and MPEG-4 are selectable for system migration.
- High sensitivity with Simple Day/Night function : 0.3 lux (Color), 0.2 lux (B/W) at F1.3 (Wide)
- ABF (Auto Back Focus) ensures easy installation and stable focus in both color and B/W modes.
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- Progressive scan ensures clear images with less motion blur and no tearing even when the subject is moving.
- Superior color reproduction by primary (RGB) color filter
- Electronic sensitivity enhancement: Auto (Up to 16x) / OFF
- Selectable light control modes: Outdoor / Indoor / Fixed electronic shutter
  - Outdoor / Indoor: Electronic shutter and ALC lens iris control are automatically controlled depending on the mode and luminance level.
  - Fixed electronic shutter: Up to 1/10,000 fixed electronic shutter can be selectable.
- VMD (Video Motion Detector) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size
- Face detection function detects the position of human face and the information is sent by XML or video stream.
- Meta data for VMD is supplied to work with the WJ-ND400 playback VMD function.
- Privacy Zone can mask up to 2 private areas, such as house windows and entrances/exits.
- 2x, 4x digital zoom controlled by browser
- Camera title display: Up to 20 alphanumeric characters on the browser, Up to 16 alphanumeric characters embedded in the image
- Alarm sources including 1 terminal input, VMD and Panasonic alarm command can trigger actions such as SDHC/SD memory recording, FTP image transfer, E-mail notification, Indication on browser, Alarm terminal output, and Panasonic protocol output.

- Full duplex bi-directional audio allows interactive communication between camera site and monitoring site.
- JPEG image compression ratio can be changed by alarm so that higher quality image can be provided.
- Prioritized stream control: One of the video streams can be prioritized when multiple recorders or client PCs are accessing the camera so that the recorder or the client PC can maintain the frame rate.
- SDHC/SD Memory card slot for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (JPEG)
- H.264/MPEG-4 max. bit rate/client and Total bit rate control allows flexible network traffic management. Frame rate priority mode controls bit rate and compression ratio to provide the specified frame rate.
- Alarm log, Manual REC log, FTP error log saved in the SDHC/SD memory card is displayed on the browser GUI and can be downloaded to the client PC. Playback or Image data download through the log is also available.
- Internet mode: H.264/MPEG-4 images can be transmitted over HTTP protocol.
- Multi-language GUI and setup menu: English, French, Italian, Spanish, German, Russian (PAL) / English, French (NTSC)
  - \* Installation required except for English
- IPv4/IPv6 protocol supported
- Analog Monitor output for easier installation
- 2.8 mm ~ 10 mm, 3.6x Varifocal Auto Iris lens

### Standard Accessories

- CD-ROM ..... 1 pc.
- Installation Guide ..... 1 pc.
- Code Label ..... 1 pc.

- The followings are for installation.
- Power Cable Plug ..... 1 pc.
  - External I/O Cable Plug ..... 1 pc.
  - Template for installation ..... 1 pc.
  - Cable tie ..... 2 pcs. (incl. a spare tie)

### Optional Accessories

Embedded Ceiling Mount Bracket <b>WV-Q168</b>	Smoke Dome Cover <b>WV-CF5S</b>	Ceiling Mount Bracket <b>WV-Q105</b> (PAL only)
		

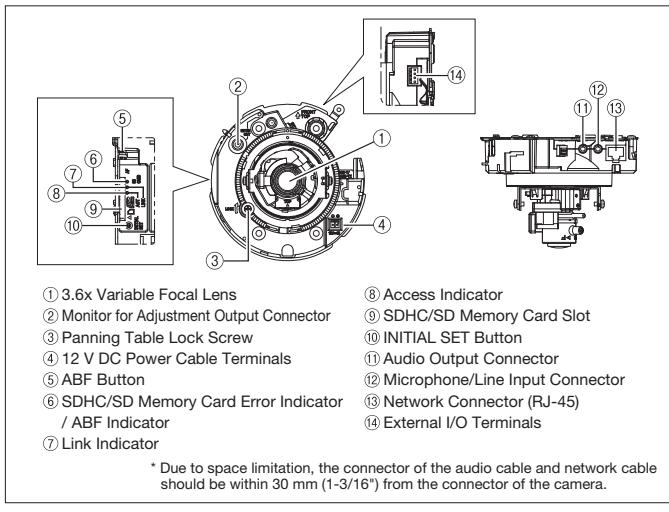
## Specifications

TV System	NTSC	PAL
<b>Camera</b>		
Image Sensor	1/3 inch MOS Sensor	
Effective Pixels	Approx. 1.3 megapixel	
Scanning Mode	Progressive scan	
Scanning Area	4.8 mm (H) x 3.6 mm (V)	
Minimum Illumination	Color: 0.3 lux, B/W: 0.2 lux at F1.3 (Shutter: 1/30 s, AGC: High), Color: 0.019 lux, B/W: 0.013 lux at F1.3 (Shutter: 16/30 s, AGC: High)	
White Balance	AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K)	
Light Control Mode	Outdoor: Automatic integration of ALC and ELC Indoor [50 Hz]: Automatic integration of ALC and ELC (up to 1/100 sec.) Indoor [60 Hz]: Automatic integration of ALC and ELC (up to 1/120 sec.)	
Shutter Speed	Fix shutter: OFF (1/30), 3/100, 3/120, 2/100, 2/120, 1/100, 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000	
Wide Dynamic Range	ON / OFF	
Face Wide Dynamic Range	ON / OFF (Only at Wide Dynamic Range: ON)	
Adaptive Black Stretch	ON / OFF (Only at Wide Dynamic Range: OFF)	
AGC	ON (LOW, MID, HIGH) / OFF	
Electronic Sensitivity UP	OFF / AUTO (Max. 2x (2/30 s), 4x (4/30 s), 6x (6/30 s), 10x (10/30 s), 16x (16/30 s))	
Simple Day/Night Mode	AUTO / OFF	
Digital Noise Reduction	High / Low	
Video Motion Detection	4 areas, Sensitivity: 15 steps, Detection size: 10 steps	
Privacy Zone	Up to 2 zones, Gray	
Camera Title (OSD)	Up to 16 alphanumeric characters	
Back Focus Adjustment	ABF/MANUAL	
<b>Lens</b>		
Vari Focal Length	2.8 mm ~ 10 mm, 3.6x varifocal	
Angular Field of View	H: 27.7° (Tele) ~ 100.3° (Wide), V: 20.8° (Tele) ~ 73.5° (Wide)	
Maximum Aperture Ratio	1: 1.3 (Wide) ~ 1: 3.1 (Tele)	
Focusing Range	0.3 m ~ ∞	
<b>Adjusting Angle</b>	Horizontal: 180° (clockwise), 170° (counter clockwise) Vertical: ±75°, Imaging tilt adjustment range: ±100°	
<b>Browser GUI</b>		
Camera Control	Brightness, AUX ON / OFF	
Display Mode	Spot, Quad: Image from 16 cameras can be displayed in 4 different Quad screens or 16 split screen (JPEG only), 20 characters camera title available.	
Digital Zoom	1x, 2x, 4x controlled by browser GUI	
Camera Title	Up to 20 alphanumeric characters	
Clock Display	Time: 12H/24H, Date: 5 formats on the browser, Summer time (Manual)	
Alarm Control	Reset	
One Shot Capture	A still picture will be displayed on a newly opened window.	
Audio	Mic (Line) Input: ON / OFF Volume adjustment: Low / Middle / High, Audio Output: ON / OFF Volume adjustment: Low / Middle / High	
SD Memory Data Download	Still or motion Images recorded in the SDHC/SD memory card can be downloaded.	
GUI/Setup Menu Language	English, French (Installation required for French) English, French, Italian, Spanish, German, Russian (Installation required except for English)	
System Log	Up to 100 (Internal), Up to 4,000 (SDHC/SD memory when the recording format is set to JPEG), error logs	
Supported OS	Microsoft® Windows® 7 Professional 64 bit/32 bit, Microsoft® Windows Vista® Business SP1 32 bit, Microsoft® Windows® XP Professional SP3 The language of the OS must be same as selected GUI language.	
Supported Browser	Windows® Internet Explorer® 8.0 32 bit (Microsoft® Windows® 7 64 bit/32 bit), Windows® Internet Explorer® 7.0 (Microsoft® Windows Vista® Business SP1 32 bit), Microsoft® Internet Explorer® 8.0 SP3 (Microsoft® Windows® XP Professional SP3)	
<b>Network</b>		
Network IF	10Base-T / 100Base-TX, RJ-45 connector	
Image Resolution	Aspect ratio: H.264: 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps [4 : 3] MPEG-4: VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG: 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps	
“1” “2”	Aspect ratio: H.264: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps [16 : 9] MPEG-4: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps	
H.264/ MPEG-4	Transmission Mode Constant bitrate / Framerate priority	
“1”	Frame Rate 1 / 3 / 5 / 7.5 / 10 / 15 / 20 / 30 fps	
	Bit Rate/ Client 64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 8,192* kbps / Unlimited * H.264 mode only	
	Image Quality LOW / NORMAL / FINE	
	Refresh Interval 0.1 fps ~ 30 fps	
	Transmission Type UNICAST / MULTICAST	
JPEG	Image Quality 10 steps	
	Transmission Type PULL / PUSH	
Audio Compression	G.726 (ADPCM) 32 kbps / 16 kbps	
Audio Mode	OFF / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex)	
Authentication for Audio	Level 1 only / Level 2 higher / All users	
Total Bit Rate	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited	
Supported Protocol	IPv6: TCP/IP, UDP/IP, HTTP, RTP, FTP, SMTP, DNS, NTP, SNMP IPv4: TCP/IP, UDP/IP, HTTP, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP	
FTP Client	Alarm image transfer, Periodic image transfer, Active/Passive selectable (When the FTP periodic transmission is failed, backup on an optional SDHC/SD memory card is available.)	
No. of Simultaneous Users	Up to 14 users (Depends on network conditions)	

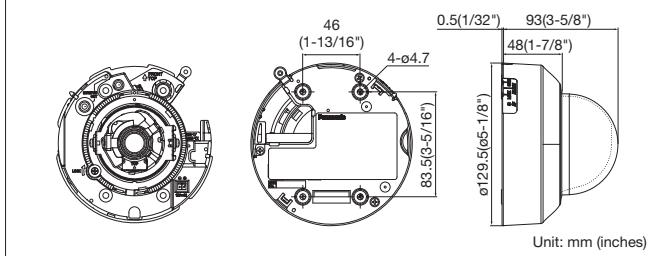
TV System	NTSC	PAL
<b>Network</b>	SDHC/SD Memory Card (Option)	H.264 recording: Manual REC / Alarm REC (Pre/Post) JPEG recording: Manual REC / Alarm REC (Post) / Backup upon network failure Compatible SD (SDHC) card: Panasonic 256 MB, 512 MB, 1 GB, 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB* model * SDHC card
<b>Alarm</b>	Face Detection	ON / OFF (with XML notification)
	Alarm Source	1 terminal input, VMD, Command alarm
	Alarm Actions	SDHC/SD memory recording, E-mail notification, Alarm terminal output, Indication on browser, FTP image transfer, Panasonic protocol output
	Alarm Log	With SDHC/SD memory card: 5,000 logs, without SDHC/SD memory card: 1,000 logs
	Schedule	Alarm / VMD / Access permission
<b>Input/ Output</b>	Monitor Output (for adjustment)	1.0 V [p-p] / 75 Ω, NTSC composite, RCA Jack
	Microphone/Line Input	MIC IN and Line IN are selectable. ø3.5 mm stereo mini jack (monaural input) (Applicable microphone; Plug-in power type) Supply voltage: 2.5 V ±0.5 V input impedance: approx. 2 kΩ
	Audio Output	ø3.5 mm stereo mini jack (monaural output) Line level
	External I/O Terminals	ALARM IN, ALARM OUT, AUX OUT
<b>General</b>	Safety/EMC Standard	UL (UL60065), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60065), CE (EN55022 ClassB, EN55024) DOC (ICES003 ClassA)
	Power Source and Power Consumption	12 V DC: 320 mA, PoE (IEEE 802.3af): 4.2 W
	Ambient Operating	-10 °C ~ +50 °C (14 °F ~ 122 °F), 90 % or less (without condensation)
	Dimensions	ø129.5 mm x 93 mm (H) (ø5-1/8" x 3-5/8" (H))
	Weight (approx.)	410 g (0.9 lbs.)

\*1 H.264 and MPEG-4 are alternative. \*2 [4 : 3] and [16 : 9] are alternative.

## Part Names and Functions



## Appearance



## Trademarks and registered trademarks

- Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
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## Important

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
- Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

- All TV pictures are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- All product pictures are NTSC models.

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